

CLAIMS

1. A synthetic or isolated nucleic acid fragment which comprises a nucleotide sequence that is identical, complementary, antisense or equivalent to a first sequence starting at nucleotide 1232 and ending at nucleotide 1825 of SEQ ID NO:1.

2. The nucleic acid fragment according to claim 1, wherein said nucleotide sequence is identical, complementary, antisense or equivalent to a second sequence starting at nucleotide 1232 and ending at nucleotide 2207 of SEQ ID NO:1.

3. The nucleic acid fragment according to claim 1, wherein an at least 30 nucleotide segment of said nucleotide sequence is at least 50% homologous with a correspondingly long segment of the sequence identified in SEQ ID NO:1.

4. The nucleic acid fragment according to claim 2, wherein an at least 30 nucleotide segment of said nucleotide sequence is at least 50% homologous with a correspondingly long segment of the sequence identified in SEQ ID NO:1.

5. A probe for identifying *Trypanosoma cruzi*, said probe comprising a nucleotide sequence that is hybridizable to at least a segment of a nucleic acid according to claim 1.

6. The probe according to claim 5, wherein said probe comprises 5 to 100 nucleotides.

7. The probe according to claim 5, wherein said probe comprises 8 to 50 nucleotides.

Sub C1

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Sub C2

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8. A primer for amplifying a nucleotide sequence, said primer comprising a nucleotide sequence that allows hybridization to at least a segment of a nucleic acid according to claim 1.

5 9. The primer according to claim 8, wherein said nucleotide sequence comprises at least five nucleotides.

10. The primer according to claim 9, wherein said nucleotide sequence is selected from the group consisting of ~~SEQ ID NO:7~~, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10 and SEQ ID NO:12.

11. A reagent for detecting or identifying Trypanosoma cruzi in a biological sample, said reagent comprising at least one of a capture probe and a detection probe, wherein said capture probe and said detection probe each comprise a nucleotide sequence that is hybridizable to at least a segment of a nucleic acid according to claim 1, and wherein said capture probe and said detection probe, if they are both present, have nucleotide sequences that are at least partially different from one another.

12. The reagent according to claim 11, wherein said capture probe is attached to a solid support.

13. The reagent according to claim 12, wherein said capture probe is directly attached to said solid support.

14. The reagent according to claim 12, wherein said capture probe is indirectly attached to said solid support.

15. The reagent according to claim 11, wherein said detection probe is labelled by a marker selected from the

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group consisting of radioactive isotopes, enzymes capable of hydrolyzing a chromogenic, fluorogenic or luminescent substrate, chromophoric chemical compounds, fluorogenic compounds, luminescent compounds, nucleotide base analogs, and biotin.

16. The reagent according to claim 15, wherein said enzymes are selected from the group consisting of peroxidase and alkaline phosphatase.

17. The reagent according to claim 11, comprising at least one primer comprising a nucleotide sequence that allows hybridization to at least a segment of a nucleic acid which comprises a nucleotide sequence that is identical, complementary, antisense or equivalent to a first sequence starting at nucleotide 1232 and ending at nucleotide 1825 of SEQ ID NO:1.

18. A method for detection and/or identification of Trypanosoma cruzi in a biological sample, comprising exposing to at least one probe according to claim 5 denatured DNA extracted from Trypanosoma cruzi or DNA obtained by reverse transcription of RNA extracted from Trypanosoma cruzi; and detecting hybridization of said probe.

19. A method for detection and/or identification of Trypanosoma cruzi in a biological sample, comprising exposing extracted RNA from Trypanosoma cruzi to at least one probe according to claim 5; hybridizing said probe with said RNA; and detecting said hybridization.

20. The method according to claim 18, wherein before said DNA is exposed to said probe, said DNA is

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amplified in the presence of an enzymatic system with at least one primer, wherein said primer comprises a nucleotide sequence that is hybridizable to a nucleic acid sequence that is identical, complementary, antisense
5 or equivalent to a sequence identified in SEQ ID NO:1.

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